

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Applicants acknowledge with appreciation the indication in the Office Action that claims 46, 47, and 55-57 are allowable.

Claim 45 has been amended for clarity, and claim 75 has been newly added. Support for the subject matter of claim 75 is provided at least in paragraph [0186] of the published specification. The amendments were not presented earlier due to a lack of foresight regarding the continued rejections of the claims. (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

Claims 38-41, 44, 45, 48-54, and 59-63 were rejected, under 35 USC §103(a), as being unpatentable over Ranta-Aho et al. (US 2005/0048975) in view of Tiedemann, Jr. et al. (US 2005/0037771). Claims 42, 43, 58, and 64 were rejected, under 35 USC §103(a), as being unpatentable over Ranta-Aho in view of Tiedemann and Legg et al. (US 6,414,947). The Applicants respectfully traverse these rejections as follows.

Claim 38 defines a method for communicating information relating to the scheduling of uplink data transmissions. According to this method, a scheduling base station transmits resource information to another base station and each of the base stations schedules communication with a different mobile terminal based on the coordinated resource information. The claimed subject matter yields an advantage of providing coordination among multiple base

stations (i.e., Node Bs) so as to increase the efficiency of soft handover (see specification page 16, lines 20-25).

The Final Rejection acknowledges that Ranta-Aho does not disclose the Applicants' claimed subject matter wherein: (1) a scheduling base station transmits resource information to another base station and (2) each of the base stations schedules communication with a different mobile terminal based on the coordinated resource information (see Final Rejection page 3, lines 8-11). To overcome this deficiency, the Final Rejection proposes that Tiedemann discloses a base station that schedules a plurality of mobile stations according to an expected load, which is based on determined resources of mobile stations in soft handover (see page 3, lines 15-16).

However, although the Final Rejection states that Tiedemann discloses a base station that schedules mobile station communication, this has no relevance to the Applicants' claimed subject matter wherein a scheduling base station transmits resource information to another base station. And the Final Rejection identifies no finding of fact upon which an inference may be drawn that Tiedemann suggests a base station that transmits resource information to another base station. Moreover, because the Final Rejection provides no basis for such an inference, it necessarily follows that Tiedemann cannot suggest the claimed subject matter of each of the base stations scheduling communication with a different mobile terminal based on any intra-base station communicated resource information.

By contrast to the Applicants' claimed subject matter, Tiedemann discloses, in the portions cited in the Final Rejection, that a base station schedules communication for mobile stations that it serves after making an estimate of the expected load contributed by all mobile stations that it does not serve but are, nonetheless, communicating with the base station (see

Tiedemann paragraph [0096], lines 1-7). Tiedemann does not disclose that the base station communicates this scheduling information to another base station and does not disclose that two base stations use this common information to schedule communication with different mobile stations. Heo is not cited in the Final Rejection for supplementing the teachings of Ranta-Aho and Tiedemann in this regard.

Accordingly, the Applicants submit that Ranta-Aho, Tiedemann and Heo, considered individually or in combination, do not suggest all of the subject matter defined by claim 38 and, thus, do not render obvious this claim. Independent claim 61 similarly recites the above-mentioned subject matter distinguishing method claim 38 from the applied references, but with respect to an apparatus. Therefore, the rejections applied to claims 42, 43, and 58 are considered to be obviated and allowance of claims 38 and 61 and all claims dependent therefrom is deemed to be warranted.

Moreover, the Final Rejection proposes that Ranta-Aho discloses the Applicants' claimed subject matter of a Hybrid Automatic Repeat reQuest (HARQ) process by discussing the establishment of uplink connections for a plurality of nodes (see Final Rejection page 2, last line, through page 3, line 2). More specifically, the Final Rejection proposes that establishing multiple uplink connections inherently comprises a plurality of processes. However, such processes as the Final Rejection proposes to be inherent within Ranta-Aho's disclosure are not HARQ processes, as recited in Applicants' claim 38. The Applicants' claimed HARQ process is a technical term having a specific meaning, to one of ordinary skill in the art, relating to one of several HARQ protocol instances that are operated in parallel.

Furthermore, Applicants' claim 38 recites scheduling information that is indicative of an allocated maximum amount of uplink resources applicable to individual HARQ processes used for uplink data transmission. The Final Rejection proposes that Ranta-Aho discloses this subject matter by mentioning that an uplink data rate is updated by synchronizing pointers in a mobile terminal and a base station (see Final Rejection page 3, lines 4-6). Although Ranta-Aho may disclose determining a maximum data rate (see Ranta-Aho paragraph [0016], lines 4-5), Ranta-Aho does not disclose the applicability of the maximum data rate to individual HARQ processes used for uplink data transmission.

Still further, Applicants' claim 38 recites that the scheduling of a mobile terminal's communication is based on information communicated between two base stations. The Final Rejection cites Tiedemann for disclosing this subject matter (see Final Rejection page 3, lines 11-16).

However, Tiedemann does not disclose the transmission of any information, which would in any way relate to the applicability of an allocated maximum amount of uplink resources, between base stations. The Final Rejection proposes a correspondence between the Applicants' claimed information indicating the applicability of an allocated maximum amount of uplink resources and Tiedemann's disclosed coupled loads. However, Tiedemann's coupled loads used in the scheduling procedure are estimated within a base station and do not involve a communication of scheduling information between base stations. Accordingly, the Applicants submit that Tiedemann does not disclose the instant claimed subject matter of transmitting information indicative of the applicability of an allocated maximum amount of uplink resources

for uplink data transmission on individual HARQ processes from a scheduling base station to another base station.

Applicants' claim 40 recites the feature of a maximum amount of uplink resources applicable on individual HARQ processes used for uplink data transmissions indicating the maximum uplink transmission power ratio that may be used by a mobile terminal for uplink transmission using the individual HARQ process. The Final Rejection proposes that Ranta-Aho discloses this subject matter in paragraph [0030] (see Final Rejection page 5, first paragraph). However, Ranta-Aho discloses, in the cited paragraph, communicating either differential or explicit commands between a base station and a mobile terminal for controlling an uplink data rate. Ranta-Aho mentions nothing relating to the claimed power ratio or the other limitations of Applicants' claim 40 in paragraph [0030].

Similarly, Ranta-Aho fails to disclose the subject matter recited instant claim 41 of at least one scheduling base station that schedules uplink data transmissions by controlling the uplink transmission power ratio of the mobile terminal.

Instant claim 45 recites that a scheduling base station repeatedly determines and signals the applicability of an allocated amount of uplink resources each time a mobile terminal in soft handover is scheduled by a scheduling base station. Although the Final Rejection cites Ranta-Aho's paragraph [0044] for disclosing this subject matter, Ranta-Aho does not disclose repeatedly determining and signaling an indication of the applicability of an allocated maximum amount of uplink resources in response to the scheduling of a mobile terminal by a scheduling base station.

With regard to present claim 49, Tiedemann does not disclose, in the cited paragraphs [0038], [0039] and [0044], the addition of a new base station. More specifically, Tiedemann does not disclose an active set update procedure. Instead, Tiedemann discloses that a scheduling cell may be changed, which effectively means that another base station of the new scheduling cell will be sending scheduling commands to mobile stations. This does not imply that there is an addition of a new base station to an active set or the signaling of the applicability of a maximum amount of uplink resources for uplink data transmission on individual HARQ processes to the added base station, within a message during active set up data procedures.

The Final Rejection proposes that Ranta-Aho discloses the subject matter of claim 52 in paragraphs [0029] and [0030]. Applicants' claim 52 essentially recites that, during soft handover, individual base stations individually determine scheduling information for a mobile terminal and signal the determined scheduling information to the mobile terminal during soft handover to allocate the maximum amount of uplink resources for uplink data transmission using the individual HARQ processes for uplink data transmission to the respective base station. Tiedemann discloses that a base station controlling the serving cell schedules a mobile terminal while the other base stations do not send any scheduling commands to that mobile terminal (see Tiedemann paragraphs [0013], [0018], [0034], and [0039]). Tiedemann's disclosure is contrary to the Applicants' claimed subject matter and a skilled artisan would not find motivation to modify Tiedemann's system to achieve the claimed subject matter in the absence of hindsight. Claims 53-57 depend from claim 52 and are similarly non-obvious over the applied references.

With regard to claim 53, the Final Rejection proposes that the claimed lowest maximum data rate would correspond to Ranta-Aho's disclosed maximum uplink rate (see Final Rejection

page 8, second paragraph). The Applicants disagree. Considering the case of different base stations individually sending scheduling commands to a mobile station, each of the different base stations will indicate a maximum data to the mobile station within the system of Ranta-Aho, which will be used in the respective cells of the different base stations. Ranta-Aho's paragraphs [0029] and [0030], cited in the Final Rejection, provide no hint that the lowest indicated maximum data rate would be used for communication with all base stations sending scheduling commands, as recited by dependent claim 53.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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Date: October 27, 2009
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